

## **REMARKS**

In the Office Action dated May 2, 2007, claims 1-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Jesmanowicz et al in view of Rittman, III et al. Claims 1-15 also were rejected under 35 U.S.C. §103(a) as being unpatentable over Jesmanowicz et al in view of Albert.

In the final rejection, in response to Applicant's previous arguments filed February 27, 2007, the Examiner provided more details with regard to the Examiner's reliance on Rittman, III et al.

Applicant has previously argued as to why, regardless of the teachings of Rittman III, et al, it would not have been obvious to a person of ordinary skill in the field of functional magnetic resonance image evaluation to modify the Jesmanowicz et al system in accordance with the teachings of Rittman III, et al, in order to arrive at the subject matter of independent claims 1 and 6. Applicant need not repeat those arguments again herein, but continues to believe that those arguments are correct. Applicant will confine the present response to responding to the elaboration by the Examiner with regard to the teaching of Rittman, III et al, that was provided in the final rejection.

As the Examiner has noted, the Rittman, III et al reference discloses the use of icons that serve for the selection and representation of stimulation parameters, as stated at column 10, lines 45-65 and column 12, lines 24-50.

At the outset, Applicant submits that it is unclear how the Examiner considers these icons to be relevant to the subject matter of claim 1 or claim 6, other than the fact that each of those claims refer to an "image-related stimulation value that is independent of said picture elements." In the context

of claim 1, this is for the purpose of assisting a person who must evaluate functional magnetic resonances images. By storing each functional magnetic resonance image together with at least one image-related stimulation value that is independent of the picture elements that form the image, a person evaluating the image is immediately informed of the presence or absence of a stimulation value that occurred, or did not occur, at the time the image was obtained, without having to undertake a detailed study of the pixels of the image itself. The purpose of referring to the image-related stimulation value as being "independent of said picture elements" is to make clear that the image-related stimulation value is easily ascertainable and identifiable without studying, viewing, or otherwise making use of any of the actual image content of the image itself, i.e. it is "independent of said picture elements."

Regardless of whether the icons in Rittman, III et al can be said to be "independent" of the "stimulation" that takes place in the Rittman, III et al system, it is clear that even if the icons disclosed in Rittman, III et al have that general attribute, it provides no insight, guidance or assistance whatsoever to a person of ordinary skill seeking assistance in evaluating images. This is because the Rittman, III et al reference concerns a computer graphic menu interface that serves to control a radio-frequency generator, that is used to generate lesions for patient therapy via suitable electrodes that are connected to a patient. Such lesions are targeted burns of specific body areas in order to necrotize tissue and thus interrupt electrical stimulation conduction paths. The passage at column 10, lines 45-65 of Rittman, III et al concerns Figure 8, and must be read in context with the entire passage at column 10, lines 23-

65. When this entire passage is considered, it is clear that the excerpt cited by the Examiner is describing a detail in the context of the overall operation of the radio-frequency generator for producing the aforementioned lesion. The statements beginning at line 36 exclusively concern the interaction of the user with the generator system via the display, so as to allow the user to make generator adjustments, and thereby set specific operating parameters for the generator, for the purpose of applying the radio-frequency energy via the electrodes. The term "stimulation" in column 10, line 41 thus refers to stimulation by the generator for the purpose of producing a lesion, and in no manner concerns or refers to "stimulation" of the type that is relevant in the context of image production, as set forth in claims 1 and 6. If a person of ordinary skill in the field of magnetic resonance image evaluation had the insight to make use of any teachings in the context of lesion generation, this would be an insight supporting patentability, rather than a reason for precluding patentability.

Moreover, it is clear that in the Rittman, III et al system, *only* pre-existing images are used, that are provided to the radio-frequency generator or its control computer, as stated at column 10, beginning at line 30. This means that image data or other patient-related data, or other historical treatment data, can be provided either before or after the activation of the generator. This further means that pre-existing image information is used, and even when image data are extracted in real time, there still is no *storage* of the image-related data concerning the stimulation. Moreover, there is no need in Rittman, III et al to make any type of correlation between any stored

information and the images that are employed in that system. This is because Rittman, III et al is not concerned with evaluation of images, but is merely concerned with the use of an image to set stimulation parameters. Once those stimulation parameters have been set and then employed, no further use is made of the image and therefore is no need to store any of that evaluation together with the image, in any form.

Therefore, even if the Jesmanowicz et al system were modified in accordance with the teachings of Rittman, III et al, the subject matter of claims 1 and 6 still would not result.

Similar considerations apply to the other secondary reference, Albert, that was used in the other rejection of claims 1-15 under 35 U.S.C. §103(a). As discussed in Applicant's previous response, the statement in that reference of a magnetic resonance system being placed at the side of the head of a subject would immediately be recognized by a person of ordinary skill in the field of magnetic resonance imaging to be nonsense, and therefore a person of ordinary skill in the field of medical imaging would be justifiably skeptical and suspicious of everything else that is disclosed in the Albert reference. In fact, the immediate reaction of a person of ordinary skill in the field of medical imaging, upon reading the aforementioned statement, would be to totally disregard the Albert reference as being a source for any useful information. Even if certain statements in the Albert reference were taken at face value, they certainly could not be used without extensive, independent verification, and thus nothing in the Albert reference provides the rigorous evidence of the type that is necessary to substantiate a rejection under 35

U.S.C. §103(a). Moreover, for the reasons discussed in Applicant's previous response, even if certain statements in the Albert reference are taken at face value, and the Jesmanowicz et al reference were modified in accordance with those statements, the subject matter of claims 1 and 6 still would not result.

Applicant therefore submits that none of claims 1-15 would have been obvious to a person of ordinary skill in the field of medical imaging evaluation based on the teachings of Jesmanowicz et al, modified in accordance with either of the Rittman, III et al or Albert references.

As a separate argument in support of the patentability of claims 4 and 14, Applicant submits that the Examiner has not specifically substantiated the rejection of either of those claims individually, but only in the context of other claims. Each of those claims refers to the image-related evaluation correlation value, which is stated in each of independent claims 1 and 6 as being stored together with each image and being independent of the picture elements, is a point on a time-related correlation curve that coincides with a point-in-time of the acquisition of the image that is stored together with this image-related evaluation correlation value. This refers to the curve K that is shown as an example in Figure 1, which is a physician-entered curve that is intended to represent a rough approximation of brain activity level, as described in the present specification at page 5, line 19 through page 6, line 3. As the Examiner has noted, the Jesmanowicz et al reference teaches a graphical representation that indicates the time varying NMR signal at any location in the brain (Jesmanowicz et al, column 3, lines 35-40). The Examiner has characterized this as being "separate from the picture

elements,” however the passage by the Examiner clearly indicates that this display is accessible only *through* the picture elements, i.e. by moving a cursor over a particular portion of the displayed image and then clicking, so as to then make the underlying NMR signal visible.

Applicant therefore submits the displayed NMR signal is not “separate from the picture elements” as contended by the Examiner, but even if this were the case, the NMR signal is not the same as the correlation curve set forth in claims 4 and 14.

If the Examiner agrees that the subject matter of claims 4 and 14 would not have been obvious to a person of ordinary skill in the field of medical imaging based on the prior art of record, the Examiner is requested to contact the undersigned representative of the Applicants to discuss the possibility of an Examiner’s Amendment to amend independent claim 1 to bring the subject matter of claim 4 therein, and to amend independent claim 6 to bring the subject matter of claim 14 therein. In making such an Amendment, if it would advance prosecution, Applicant would not be adverse to referring to the correlation curve as being a “predetermined” curve or a “user-entered” curve, in order to further distinguish the correlation curve from the NMR signal that is displayed in the Jesmanowicz et al reference. Even without that additional description, however, Applicant submits that the term “correlation curve” is clearly distinguishable from the display of the NMR signal that is disclosed in Jesmanowicz et al.

Early reconsideration of the application is therefore respectfully requested.

Submitted by,

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